

REMARKS

Claim 60 remains in the referenced application.

Claims 60 stands rejected under 35 U.S.C. §103(a) by Bethuy et al. (U.S. Patent No. 5,732,563 - hereinafter referred to as Bethuy) in view of Piatkowski, Jr.(U.S. Patent No. 4,010,650 - hereinafter referred to as Piatkowski). Applicant respectfully traverses the above-recited rejection because, contrary to the Examiner's assertion, Piatkowski fails to disclose the output of a pulse signal to first and second probes.

In particular, Applicant's microcontroller 51 delivers a pulse signal received by the probes 121 and 122. When the probes 121 and 122 are not contacted by liquid in the liquid container the pulse signal delivered by the microcontroller 51 to the probes 121 and 122 is shunted back to the microcontroller 51 indicating an insufficient amount of liquid in the liquid container. Conversely, when the probes 121 and 122 are contacted by liquid in the liquid container, the pulse signal delivered by the microcontroller 51 to the probes 121 and 122 is attenuated to ground via the ground probe 123 indicating to the microcontroller 51 a sufficient amount of liquid in the liquid container. Applicant's microcontroller 51 delivers the pulse signal to the probes 121 and 122 because the application of a pulse signal to the probes 121 and 122 diminishes the plating of impurities contained in the liquid onto the probes 121 and 122.

As previously argued and now admitted by the Examiner, Bethuy fails to disclose a controller coupled to first and second probes that outputs a pulse signal received at the first and second probes. The Examiner has thus combined Bethuy with Piatkowski and now asserts Piatkowski discloses the application of a pulse signal to first and second probes. Applicant respectfully disagrees with the Examiner's assertion because Piatkowski simply does not disclose the application of a pulse signal to first and second probes. Piatkowski very clearly

discloses the application of a constant alternating voltage across electrodes 22 and 30 (see column 3, line 49, through column 4, line 18), and a constant alternating voltage is not a pulse signal. A constant alternating voltage is a voltage signal that continuously traverses from a positive voltage to a negative voltage during the entire time of its application. In contrast, a pulse signal is a positive only voltage applied for a short period of time. Applicant accordingly respectfully submits Piatkowski does not disclose the application of a pulse signal to first and second probes because a constant alternating voltage is not a pulse signal.

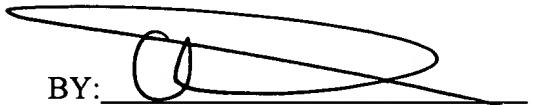
Applicant therefore respectfully submits the combination of Bethuy in view of Piatkowski does not disclose the invention of claim 60 because modifying Bethuy in view of Piatkowski provides a system that applies only a constant alternating current across any system probes, and a constant alternating voltage is not a pulse signal. As such, the system resulting from the combination would not diminish the plating of impurities contained in a liquid onto the probes because the constant alternating current is continuously on and would therefore continuously subject the probes to a plating effect. Applicant accordingly respectfully submits claim 60 is patentable over the combination of Bethuy in view of Piatkowski because that combination does not disclose the output of a pulse signal to first and second probes thereby diminishing the plating of impurities contained in a liquid onto the probes.

In view of the foregoing, Applicant respectfully requests reconsideration of the rejected claim and earnestly solicits early allowance of the application.

Respectfully submitted,

LAW OFFICES OF CHRISTOPHER L. MAKAY
1634 Milam Building
115 East Travis Street
San Antonio, Texas 78205
(210) 472-3535

DATE: 13 January 2004

BY: 

Christopher L. Makay
Reg. No. 34,475

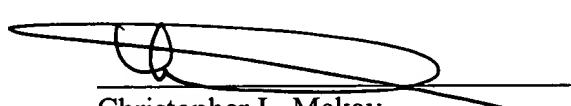
ATTORNEY FOR APPLICANT

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 CFR 1.10 on the date indicated below, addressed to the Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Express Mail No. EL 979136695 US

Date: 13 January 2004


Christopher L. Makay